**ORIGINAL** 

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FIELD NOTES

OF THE

SURVEY OF

A METES-AND-BOUNDS SURVEY

IN SECTION 6

TOWNSHIP 20 NORTH, RANGE 7 EAST

OF THE GILA AND SALT RIVER MERIDIAN,

IN THE STATE OF ARIZONA

#### **EXECUTED BY**

Marshall Steele Wixom, Cadastral Surveyor

Under Special Instructions dated June 1, 2020, approved June 1, 2020, which provided for the surveys included under Group No. 1204, and assignment instructions dated June 1, 2020.

Survey commenced June 2, 2020

Survey completed February 24, 2021

#### INDEX DIAGRAM

TOWNSHIP 20 NORTH RANGE 7 EAST GILA & SALT RIVER MERIDIAN, ARIZONA

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Metes-and Bounds in Section 6 ...... Pages 5-14

#### T.20 N., R.7 E., Gila and Salt River Meridian, Arizona

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The following field notes describe the survey of a metes-and-bounds survey in Section 6, Township 20 North, Range 7 East, Gila and Salt River Meridian, Arizona.

The survey was requested by Robert L. Worley, Installation Management Flight Chief, Luke Air Force Base, Arizona (hereafter "Luke AFB"), in an email request for survey dated June 27, 2019. Its purpose is to identify the boundary of the current land interests of the U.S. Air Force (hereafter "USAF"), as they pertain to the Fort Tuthill Recreation Annex, along with those land interests which the USAF is expected to receive upon conclusion of a boundary agreement with Coconino County, Arizona (hereafter "County").

Luke AFB holds fee simple title to the Fort Tuthill parcel as described in Schedule B of Declaration of Taking CIV89-1760 PCT RGS (hereafter "1989 DOT"). This document is filed in the Coconino County Recorder's Office, in Book No. 1307, Page 443.

The USAF and the County entered into a Memorandum of Understanding (hereafter "MOU"), on October 01, 2020, for the purpose of forming a boundary agreement that will resolve inconsistencies between the lines of the 1989 DOT and current occupation by the parties. The end goal being to create and exchange perpetual easements of equivalent land value which will adequately and harmoniously protect the land use and interests of both the USAF and the County. Preliminary parcels for these easements are identified, depicted graphically, and partially described in Enclosure 3, Proposed Easement Area Maps, dated August 31, 2020 (A.K.A Exhibit 3), hereinafter referred to as "Exhibit 3".

The history of surveys pertaining to this survey is as follows:

John L. Harris, U.S. Deputy Surveyor, surveyed the exterior boundaries, Township 20 North, Range 7 East, in 1878 (Book 1387). He also surveyed the subdivisional lines the same year (Book 351).

Wallace T. Ott, Supervisory Surveying Technician, remonumented the corner of sections 5, 6, 7, and 8, in 1966 (Book 4810).

The U.S. Army Corps. of Engineers and several local surveys attempted to locate the Fort Tuthill Recreation Annex on the ground prior to 1989. However, each of these surveys differ from the land description that was subsequently furnished in the 1989 DOT and thus used to convey title. A memorandum from Gordon R. Bubel, Cadastral Surveyor, to the Chief Cadastral Surveyor of Arizona, dated April 08, 2020, provides a more in-depth history of surveys and chain of title. This document is on file electronically with the Arizona Cadastral and Indian Surveys Branch, Bureau of Land Management, under Group No. 1204.

Kenneth A Krenke, Arizona R.L.S. No. 14671, surveyed 4 parcels of land in section 6, in 1994 (hereafter "Krenke's survey"). One of these parcels is the Luke AFB, Fort Tuthill Recreation Annex,

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according to the land description furnished in the 1989 DOT. His record of survey is filed in the Coconino County Recorder's Office, in Book No. 12, Page 18.

Krenke monumented the metes-and-bounds angle points of his survey utilizing rebars, 1/2 in. diam., with aluminum caps, 1 1/2 ins. diam. (unless otherwise noted), hereinafter referred to as "capped rebars". He also marked the cap of each monument with a unique 3 digit point number and identified it accordingly on his record of survey. The corners of said survey and the lines which they control will hereafter be identified according to these point numbers.

This survey was executed in accordance with the specifications as set forth in the <u>Manual of Instructions for the Survey of the Public Lands of the United States, 2009</u>, and the Special Instructions dated June 1, 2020, for Group Number 1204, Arizona.

The true meridian direction and length of all lines were determined by real time kinematic global positioning system observations using Trimble Navigation R10-2 model receivers. A Nikon XS model conventional total station was used to occupy GPS established control and take additional measurements under tree canopy when necessary.

The portions of Krenke's 1994 survey which relate to the 1989 DOT and the fee simple boundary of Luke AFB, Fort Tuthill Annex were retraced and line-staked. All fence lines, structures, and other relevant forms of occupation in the vicinity of these lines were thoroughly mapped. This information was presented graphically to representatives of the USAF and the County, prior to a walkthrough of the 1989 DOT lines, during an onsite boundary agreement meeting which occurred on June 16, 2020.

Geodetic control was derived from Global Positioning System (GPS) static observations post processed by National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS) DL1882 AZFL NAU FLAGSTAFF CORS ARP, DP9944 GCES GRAND CANYON ST 1 CORS ARP, DP9946 P008 TUBA\_CITY\_AZ2007 CORS ARP, and AI8820 FERN FERNO MESA CORS ARP.

The NAD 83 (2011) (EPOCH: 2010), geographic position of the corner of sections 5, 6, 7, and 8 is as follows:

Latitude: 35°08'13.344"N. Longitude: 111°41'09.833"W.

The NAD 83 (2011) (EPOCH: 2010), geographic position of the 1/4 section corner of sections 6 and 7 is as follows:

Latitude: 35°08'13.081"N. Longitude: 111°41'41.770"W.

The mean magnetic declination is 10  $1/4^{\circ}$  E.

CHAINS	T.20 N., R.7 E., Gila and Salt River Meridian, Arizona			
	Restoring the 1989 DOT survey executed by			
	Kenneth A. Krenke, in 1994			
	Beginning at Point No. 185, identical with AP1, and identical with the Point Of Beginning described in the 1989 DOT. Monumented with a capped rebar, firmly set, projecting 2 ins. above ground, mkd. NES 185 1994 LS14671.			
	Affix brass washer mkd. BLM T20N R7E S6 AP1 2020.			
7 d d d d d d d d d d d d d d d d d d d	The cor. falls alongside and SE of a boulder, 3 x 3 x 1 ft.			
	From this corner, the cor. of secs. 5, 6, 7, and 8, bears S. 79°32′ E., 33.41 chs. dist. Monumented with a stainless steel rod, 3/4 in. diam., firmly set, flush with the ground, with brass cap mkd. T20N R7E S6 S5 S7 S8 PLS42014 2016.			
	From this same corner, the 1/4 sec. cor. of secs. 6 and 7, bears S. 48°36′ W., 9.79 chs. dist. Monumented with a stainless steel pipe, 1 1/4 ins. diam., firmly set, projecting 4 ins. above ground, with brass cap mkd. COCONINO COUNTY ENGINEERING DEPT. 6 7 1/4 1968.			
:	N. 10°01' E., along line 185-186.			
2.58	Point for AP2, point of beginning for Parcel A, hereinafter described.			
	Set a rebar, 24 ins. long, 5/8 in. diam., 24 ins. in the ground, with brass cap, 2 ins. diam., mkd.			
	T 20 N R 7 E AP2			
	S6			
	2020			
3.39	Cross asphalt pavement, and enter Fort Tuthill parking lot.			
7.81	Leave Fort Tuthill parking lot.			
8.19	Composite wood fence, 6 ft. high, bears N. 55°43' E. and S. 55°43' W.			
8.26	Southeasterly edge of pavement, Battalion Road, bears N. 55° E. and S. 55° W.			
8.68	Northwesterly edge of pavement, Battalion Road, bears N. 55° E. and S. 55° W.			

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8.71	Composite wood fence, 6 ft. high, bears N. 53°34' E. and S. 53°34' W.		
9.79	Composite wood fence, 6 ft. high, bears S. 51°27' E. and N. 51°27' W.		
9.80	Point for AP6, a point for Parcel A, hereinafter described.		
	Set a rebar, 24 ins. long, 5/8 in. diam., 24 ins. in the ground, with brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E		
	AP6 S6		
	APO SO		
	2020		
9.89	Point No. 186, monumented with a capped rebar, firmly set, 2 ins. below ground, mkd. NES 186 1994 LS14671.		
	Continuing measurement, along line 186-173.		
10.25	Point for AP7, point of beginning for Parcel B, hereinafter described.		
	Set a rebar, 24 ins. long, 5/8 ins. diam., 24 ins. in the ground, with brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E S6 AP7		
	2020		
	Continuing measurement, along line 186-173.		
10.26	Chain-link fence, 6 ft. high, bears N. 60°09' E. and S. 60°09' W.		
11.00	Cross asphalt pavement, and enter Coconino County parking lot.		
11.30	Point No. 173, monumented with a MAG nail, firmly set in pavement, presumed to have been established by Kenneth A. Krenke, Arizona R.L.S. 14671, in 1994.		
	N. 79°59' W., along line 173-174.		
0.33	Point for Point No. 174.		
	Set MAG spike, 4 1/2 ins. long, 1 in. diam. head, flush with asphalt.		

	T.20 N., R./ E., Gila and Sait River Meridian, Arizona
CHAINS	S. 9°57' W., along line 174-175.
0.30	Leave Coconino County parking lot and cross Pump House, 14 ft. by 11 ft.
0.82	Point No. 175, monumented with a capped rebar, firmly set, projecting 1 in. above ground, mkd. NES 175 1994 LS14671.
	Cor. falls under a water tower, alongside the NE cor. of the structure's central concrete footing, 6 1/2 ft. x 6 1/2 ft.
	N. 80°02' W., along line 175-176.
0.32	Intersect line 9-10. From this point, AP9 bears S. 12°14' W., 0.32 chs. dist., and AP10 bears N. 12°14' E., 0.46 chs. dist., both hereinafter described.
0.34	Chain-link fence, 6 ft. high, bears N. 12°14' E. and S. 12°14' W. A shed for storing firewood, 28 ft. by 7 ft., is situated lengthwise along the inside of the fence.
0.56	Point No. 176, monumented with a capped rebar, firmly set, 4 ins. below ground, mkd. NES LS14671.
	Cor. falls under a pile of bark, in an area used for splitting firewood.
	N. 9°57' E., along line 176-177.
0.45	Chain-link fence, 6 ft. high, bears S. 79°41' E. and N. 79°41' W.
0.46	Intersect line 10-11. From this point, AP10 bears S. 79°41' E., 0.26 chs. dist., and AP11 bears N. 79°41' W., 6.22 chs. dist., both hereinafter described.
0.62	Gravel road, 11 ft. wide, bears S. 80° E. and N. 80° W.
0.76	Edge of sidewalk, bears, bears S. 80° E. and N. 80° W.
0.82	Calculated position for Point No. 177. Point falls beneath a cylindrical propane tank, 2 1/2 ft. diam., 4 1/2 ft. tall, on a cinder block footing. Impractical to monument.
	N. 79°59' W., along line 177-178.
3.97	Leave sidewalk.
7.08	Chain-link fence, 5 ft. high, bears N. 10°14' E. and S. 10°14' W.

	1.20 N., R./ E., GIIA AND SAIL RIVEL MELIDIAN, ALIZONA		
CHAINS 7.20	Point No. 178, monumented with a capped rebar, firmly set, 2 ins. below ground, mkd. NES 178 1994 LS14671.		
	S. 9°58' W., along line 178-179.		
1.26	Chain-link fence, 5 ft. high, bears S. 85° E. and N. 85° W.		
1.68	Gravel road, 11 ft. wide, bears northeasterly and southwesterly.		
2.57	Point No. 179, monumented with a capped rebar, firmly set, flush with the ground, mkd. NES 179 1994 LS14671.		
	N. 80°01' W., along line 179-180.		
3.44	Chain-link fence, 4 ft. high, bears North and South.		
5.86	Point for AP13, point of beginning Parcel E, hereinafter described.		
	Set a rebar, 24 ins. long, 5/8 in. diam., 23 ins. in the ground, with a brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E		
	AP13 S6		
	2020		
5.87	Chain-link fence, 6 ft. high, bears N. 0°01' E. and S. 9°01' W.		
6.07	Point No. 180, monumented with a capped rebar, firmly set, projecting 1 in. above ground, mkd. NES 180 1994 LS14671.		
	N. 10°10' E., along line 180-181.		
0.48	Chain-link fence, 6 ft. high, bears S. 79°30' E. and N. 79°30' W.		
0.76	Point No. 181, monumented with a capped rebar, firmly set, flush with the ground, mkd. NES 181 1994 LS14671.		
	N. 79°59′ W., along line 181-182.		
5.53	Point No. 182, identical with AP2, monumented with a capped rebar, firmly set, flush with the ground, mkd. NES 182 1994 LS14671.		
	Affix brass washer mkd. BLM T20N R7E S6 AP15 2020.		
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	T.20 N., R.7 E., Gila and Salt River Meridian, Arizona
CHAINS	
	S. 10°01' W., along line 182-183.
4.55	Point No. 183, monumented with a capped rebar, firmly set, projecting 2 ins. above ground, mkd. NES 183 1994 LS14671.
	S. 79°59' E., along line 183-184.
2.27	Point No. 184, monumented with a capped rebar, firmly set, projecting 1 in. above ground, mkd. NES 184 1994 LS14671.
	S. 64°09' E., along line 184-185.
1.39	Point for AP17, point of beginning Parcel F, hereinafter described.
	Set a rebar, 24 ins. long, 5/8 in. diam., 24 ins. in the ground, with brass cap, 2 ins. diam., mkd.
	T 20 N R 7 EAP17
	S6
	2020
12.28	Point of beginning for Parcel G, hereinafter described, not safe or practical to monument.
18.10	Point No. 185, identical with AP1, and point of beginning.
	Note: Parcel A is adjacent to the 1989 DOT, and is occupied by the Fort Tuthill Recreation Annex.
	Survey of Parcel A
	From AP 2, hereinbefore described.
	S. 64°09' E., along line 2-3.
0.30	Point for AP3.
	Set a rebar, 24 ins. long, 5/8 in. diam., 22 ins. in the ground, with brass cap, 2 ins. diam., mkd.
*	

	T.20 N., R.7 E., Gila and Salt River Meridian, Arizona
CHAINS	
	T 20 N R 7 E
	AP3 /
	S6
	2020
	N. 10°01' E., along line 3-4.
	N. 10 01 E., along line 3-4.
5.98	Point for AP4.
	Set a rebar, 24 ins. long, 5/8 in. diam., 22 ins. in the ground,
	with brass cap, 2 ins. diam., mkd.
	T 20 N R 7 E
	AP4
	S6
	2020
	<del></del>
	N. 55°42' E., along line 4-5.
	N. 33 42 E., along line 4-3.
1.07	Point for AP5.
	Set a rebar, 24 ins. long, 5/8 in. diam., 21 ins. in the ground,
	with brass cap, 2 ins. diam., mkd.
	T 20 N R 7 E
	225
	AP5 S6
	2020
	N. 51°27′ W., along line 5-6.
1 00	ADC housinhafana damarihad
1.20	AP6, hereinbefore described.
	Note: Parcel B is a portion of the 1989 DOT occupied by Coconino
	County.
	Survey of Parcel B
	From AP7, hereinbefore described.
	C F0942/ W along line 7.0
	S. 59°43′ W., along line 7-8.
0.16	Point for AP8.
0.10	LOTHE TOT ATO.
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	T.20 N., R.7 E., Gila and Salt River Meridian, Arizona		
CHAINS			
	Set a rebar, 24 ins. long, 5/8 ins. diam., 23 ins. in the ground, with brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E		
	S6 /		
	AP8		
	2020		
	N. 78°13′ W., along line 8-9.		
0.55	Point for AP9.		
	Set a rebar, 24 ins. long, 5/8 ins. diam., 23 ins. in the ground, with brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E		
	S6		
	AP9		
	2020		
	N. 12°14' E., along line 9-10.		
0.32	Point at intersection with line 175-176, located N. 80°02' W. 32 lks. dist. from Point No. 175. Identical with the point obeginning for Parcel C. Point not monumented.		
	Note: Parcel C is adjacent to the 1989 DOT, and is occupied by the Fort Tuthill Recreation Annex.		
	Survey of Parcel C		
	From the point at intersection with line 175-176.		
	N. 12°14' E., along line 9-10.		
0.46	Point for AP10.		
	Set a rebar, 24 ins. long, 5/8 in. diam., 22 ins. in the ground, with brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E		
	AP10 S6		
	2020		

	T.20 N., R.7 E., Gila and Salt River Meridian, Arizona		
CHAINS	N. 79°41′ W., along line 10-11.		
0.26	Point at intersection with line 176-177, located N. 9°58' E., 46 lks. dist. from Point No. 176. Identical with the point of beginning for Parcel D. Point not monumented.		
	Note: Parcel D is a portion of the 1989 DOT occupied by Coconino County.		
	Survey of Parcel D		
	From the point at intersection with line 176-177.		
	N. 79°41' W., along line 10-11.		
6.22	Point for AP11.		
	Set a rebar, 24 ins. long, 5/8 in. diam., 23 ins. in the ground, with a brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E S6 AP11		
	2020		
	S. 10°33' W., along line 11-12.		
2.25	Point for AP12.		
	Set a rebar, 24 ins. long, 5/8 in. diam., 23 ins. in the ground, with a brass cap, 2 ins. diam., mkd.		
	T 20 N R 7 E S6		
	AP12		
	2020		
	N. 80°01' W., along line 12-13.		
0.95	Point No. 179, herein before described.		
	Note: Parcel E is adjacent to the 1989 DOT, and is occupied by the Fort Tuthill Recreation Annex.		

CHAINS Survey of Parcel E	
From AP13, herein before described.	
N. 9°02' E., along line 13-14.	
0.76 Point for AP14, at the intersection with a projection of 182-181, falls along the N. side a Ponderosa pine, 15 in	
Set a rebar, 24 ins. long, 5/8 in. diam., 22 ins. in th with brass cap, 2 ins. diam., mkd.	ne ground,
T 20 N R 7 E S6 AP14 2020	
N. 79°59' W., along line 14-15.	
0.20 Point No. 181, herein before described.	
Note: Parcel F is adjacent to the 1989 DOT, and is oc the Fort Tuthill Recreation Annex.	ccupied by
Survey of Parcel F	
From AP17, herein before described.	
N. 79°59' W., along line 17-16.	
3.61 Point for AP16.	
Set a rebar, 24 ins. long, 5/8 in. diam., 23 ins. in the with brass cap, 2 ins. diam., mkd.	ne ground,
T 20 N R 7 E	
S6 AP16	
2020	
N. 10°01' E., along the extension of line 182-183.	
0.38 Point No. 183, herein before described.	

#### CHAINS

Note: Parcel G is a strip of land adjacent to the 1989 DOT, utilized as a snow tube run by the Fort Tuthill Recreation Annex.

#### Survey of Parcel G

A strip of land, 26 ft. in width, 13 ft. on each side of centerline, the centerline of said strip is described as follows: from the unmonumented point of beginning for Parcel G, on line 184-185, located N. 64°09' W., 5.82 chs. dist. from Point No. 185, thence S. 24°46' W.,73 lks. dist., thence S. 7°50' E., 48 lks. dist., thence S. 12°34' E., 1.83 chs. dist., said centerline there terminating, the side lines of said strip are lengthened or shortened at line 184-185 and to meet at angle point intersections.

#### GENERAL DESCRIPTION

The surveyed area consists of a metes-and-bounds parcel known as the Fort Tuthill Recreation Annex, in the south half of Section 6, Township 20 North, Range 7 East. Said parcel is located outside of the City of Flagstaff, immediately south of the Coconino County Fairgrounds. Fort Tuthill Recreation Annex is operated by the United States Air Force as a military recreational campground. Elevation ranges from about 7,000 feet to 7,050 feet above sea level.

Interstate Highway No. 17 provides primary access to the site via Exit 337 and westbound John Wesley Powell Boulevard (Fairgrounds Road).

The terrain is nearly level and heavily wooded with Ponderosa pine. There is very little undergrowth due to the canopy. Fort Tuthill Recreation Annex is fenced along the north side and a portion of the east side. The northeast end of the campground is clear of timber and is occupied by administrative buildings, a playground, and the main parking lot. Individual cottages, cabins, yurts, and tent campsites are dispersed throughout the remainder of the facility.

The mean magnetic declination of 10  $1/4^{\circ}$  E., was derived from the National Oceanic and Atmospheric Administration computer program GEOMAG, utilizing the World Magnetic Model 2020 for the dates of survey.

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

#### FIELD ASSISTANTS

NAMES	CAPACITY
Geoffrey A. Graham	Supervisory Land Surveyor
Mark R. Searles	Surveying Technician
Charles E. Besancon III	Surveying Technician

#### CERTIFICATE OF SURVEY

I, Marshall Steele Wixom, Cadastral Surveyor, HEREBY CERTIFY upon honor, that in pursuance of Special Instructions bearing date of the 1st day of June, 2020, I have surveyed a metes-and-bounds survey in Section 6, Township 20 North, Range 7 East, of the Gila and Salt River Meridian, in the State of Arizona. Which is represented in the foregoing field notes as having been executed by me and under my direction. Said survey has been made in strict conformity with said special instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, 2009, and in specific manner described in the foregoing field notes.

7-14-2021	Marshall S. Wisom
(Date)	(Cadastral Surveyor)

#### CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT Phoenix, Arizona

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The foregoing field notes of the survey of a metes-and-bounds survey in Section 6, Township 20 North, Range 7 East, Gila and Salt River Meridian, in the State of Arizona, executed by Marshall Steele Wixom, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

7/22/2021	Mar Mure
(Date)	(Chief Cadastral Surveyor of Arizona)

CERTIFICATE OF TRANSCRIPT

I CERTIFY That the foregoing transc								
survey in T. 29 N., R. 7 E., Gila copy of the original field notes.		Sait	River	meridian	, Arizona,	15	a	true
(Date)	(Ch.	ief C	adastr	al Survey	or of Ariz	ona)	=	